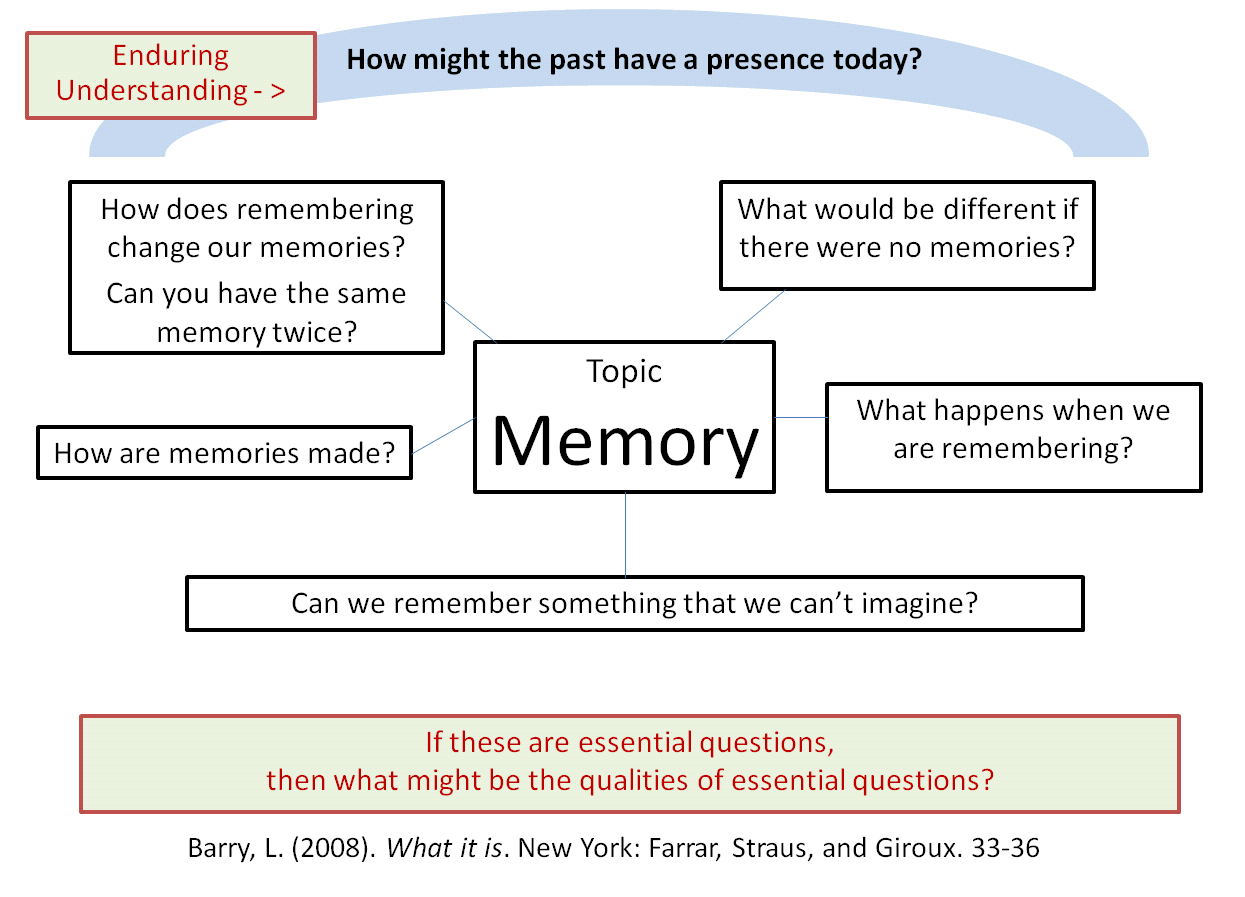
**Creating Essential Questions**

**Qualities of Essential Questions**

* Explores different aspects of a topic
* Requires use of terminology/academic vocabulary to answer
* Engages learners in thinking critically
* Leads to careful consideration of the topic
* No wrong or right answer – open ended
* Fact involving who, what, where, why, and how are needed to answer
* Answers may change as they are informed by developing knowledge, feelings, skills, and experiences
* Asked and answered from a perspective
* Takes time to answer
* Evokes feelings
* Leads to more discussion
* Significant to at least one discipline/subject
* Controversial – all people won’t agree on the answers
* When asked, one is inclined to think of an answer, the question is an irresistible invitation to thinking
* May evokes strong answers that are hard to change
* Answering requires a general overview of the topic understudy

**Sample Essential Questions**

* Why do people explore?
* People work together to accomplish things that they couldn’t do alone.
* How do patterns help us understand our world?
* Communities help people?
* Systems come from routines and acting on what’s important.
* All things change?
* Is progress good?
* Seekers often find things.
* Diversity makes us stronger.
* Where we live influences how we live?
* Does the sum of the parts equal a whole?
* Does everything have a place?
* Do actions speak louder than words?
* How is change made?
* What do women want? (teenagers, Presidents, etc.)
* Are pictures worth a thousand words?
* One thing leads to another.
* How do you know that something is true?
* Truth is found through logic.
* Are things equal?
* Is balance maintained?
* Relationships explain everything?
* Location is power. (Placement)
* Is less really more?
* Can rules control?
* Words have power. (Shapes)
* Is Math a human creation?
* How is religion power?
* Order matters.
* Numbers tell stories.
* Every piece is connected.
* You are your habits.
* Commonalities make communities?
* Are we as similar as we are different?
* What is the relationship between humans and nature?
* What does it mean to be human?
* Oppression is never ending?
* Humans seek to gain power?
* How is comparing useful?
* Can feelings be legislated?
* How do wars work?
* How does the past have a presence today?
* How are tensions created?
* Do opposites attract?
* Communication is effective when the message is received clearly.
* What makes something distinct?
* Form and function tell a story.
* Individuals are in constant conflict with society?
* Interaction leads to conflict.
* Individuals make a difference?
* Who is the hero?
* What is the difference between strength and power?
* Expressions have structure.
* Can beliefs be legislated?
* Technology changes \_\_\_\_\_
* Can fear control government?
* What do colors say?

Understanding Goals may be specific to a discipline. For example:

* History is the stories that we remember.
* What makes a story great?
* Does \_\_\_\_\_\_\_\_\_\_\_ shape or reflect culture? (art, technology, science)
* Why do we need art?
* What does \_\_\_\_\_\_ tell us about ourselves? (art, history, math)
* How do we use resources to conserve resources?
* Who decides the meaning of art?
* Are we consumed by technology?
* Scientists write.

**How do teachers recognize student understanding?**

**Individual students may create products to demonstrate their understanding:**

Ideas for products or performance assessments include:

Journals, portfolios, exhibitions, demonstrations, oral presentations, video tapes, songs, slides, rubrics, essays, stories, arguments, costumes, visual works of art, charts, graphic organizers, graphs, tests, labs, web sites, poems, maps, games.

**Individual students show understanding when they:**

* Take active roles in evaluating their own progress toward goals
* Apply knowledge to real world situations
* Make connections across disciplines, from one reading/ lecture/ video to another, and from something learned in the classroom to their own experience
* Independently solve problems
* Transfer knowledge, or use it in a new situation

**Groups of students show understanding when they:**

* Talk to each other meaningfully about the topic, even when the teacher is with another group
* Rely on each other for knowledge
* Trust student research
* Provide thoughtful, relevant feedback
* Ask for and provide clarification to each other, respect the ideas of each member of the group

**When the learning experience has focused on deepening understanding and building knowledge and skills, classrooms often have these characteristics:**

* Desks and classroom arrangement are flexible and may change to suite the needs of a lesson
* There is more student and teacher made materials on the walls than commercial
* Essential questions, key vocabulary and important goals are visible, either posted directly or evident from student work

**Teachers facilitate the deepening understanding when they:**

* Align assessments with goals/objectives and with learning activities
* Provide activities which engage critical thinking skills and problem solving abilities while responding to an investigative question related to an understanding goal
* Assess often and adjust instruction
* Offer assignment choice based on student needs
* Plan lessons so that there is time to confer and offer feedback with individuals and/or groups of students.
* Plan lessons so that students receive feedback on their work from a variety of sources (peers, self, expert guests, and teachers)

Based on Wiggns & Mc Tighe. (1998). *Understanding by Design. Alexandria, VA:* Association for Supervision and Curriculum Development



[](http://www.istockphoto.com/stock-photo-11596883-nyc.php)[](http://www.istockphoto.com/stock-photo-6186712-golden-gate-bridge.php)**Understanding Goals**

**What is an Understanding Goal?**

Understanding Goals are like landmarks on the maps of a subject.

* The landmarks represent the big ideas of a subject or discipline that orient travelers on the map of a subject.
* Landmark understanding goals signal to explorers the most important parts of a subject or discipline. Often these ideas are so big, that students revisit the same landmark understanding goal throughout many grades developing a new level of skills and knowledge as they consider the big idea in more complex ways.
* Recognizing the most important landmarks helps students assess where they have been, where they are, and where they might explore.
* Working toward reaching a landmark understanding goals gives a purpose for student travelers to use knowledge and skills related to the subject being explored.
* The maps of one subject often overlap with the maps of another subject and share landmark understanding goals.

Understanding goals come in different sizes. A one word universal theme may be used as a ***throughline*** for they year long study or may connect several units of study. These ideas are very useful for connecting units across a scope and sequence.   
Some examples of possible universal themes are:

* Cooperation
* Change
* Patterns
* Community
* Interdependence
* Belonging
* Power
* Adversity
* Family
* Humanity
* Communication
* Cycles
* Revolution
* Perspective
* Acceptance
* Courage
* Honesty
* Diversity
* Survival
* Separation
* Leadership
* Respect
* Choice
* Structure
* Equality
* Conflict
* Interaction
* Equilibriums
* Balance
* Transformation
* Uniqueness
* Order
* Freedom
* Scarcity
* Hunger
* Hope
* Tradition
* Sacrifice
* Tolerance

**Steps to Developing Understanding Goals**

* 1. List the knowledge and skills that are tested or priorities for assessment for a unit.
  2. Create a title for this list of information. The title is the umbrella idea where all information would fit. It may be necessary to group items under several smaller titles and then to ultimately combine the smaller titles to one overarching title.
  3. Assess if this title represents an idea that is essential to working in the subject or discipline. If it does then the title is likely an Understanding Goal.
  4. Test the Understanding Goal for practical use
  + Is the Understanding Goal written in language to engage students?
  + Is it likely that the Understanding Goal would make sense to students?
  + Is this Understanding Goal relevant to other subjects or is it interdisciplinary?
  1. Can students demonstrate progress towards this Understanding Goal through some form of “real world” project or action?

**Try a Thinking Routine to Stretch your Thinking about the Big Ideas of Curriculum**

Harvard, Project Zero, Visible Thinking Routine: Question Starts

<http://pzweb.harvard.edu/vt/VisibleThinking_html_files/03_ThinkingRoutines/03d_UnderstandingRoutines/QuestionStarts/QuestionStarts_Routine.html>

**Question Starts: A routine for creating thought provoking questions.**

Step One: List what students have to know about the topic.

Step Two: Brainstorm questions that would require this knowledge and thinking (such as interpretation, inference or synthesis) to answer?

**Question Starts**

Start a question with:

Why…?

What are the reasons…?

Who would care if …?

What caused…?

What if…?

What is the significance of …?

What would you change if …?

Who or what is affect by …?

What are the purposes of …?

Step Three: Star the most important questions from your list.

Step Four: Discuss those questions with a partner.

Step Five: Reflect: What new ideas do you have about teaching this topic?

**Exploring Our Own Understanding**

**understanding 1** **:** a mental grasp **:** [comprehension](http://www.merriam-webster.com/dictionary/comprehension)  
**2 a** **:** the power of comprehending; especially **:** the capacity to apprehend general relations of particulars **b** **:** the power to make experience intelligible by applying concepts and categories. understanding. (2010). In *Merriam-Webster Online Dictionary*. Retrieved May 10, 2010, from http://www.merriam-webster.com/dictionary/understanding

1. What is something that you understand well?
2. How did you develop that understanding?
3. How do you know that you understand?
4. Share and record responses to notice: What patterns do we see in our responses?
5. Think: What might this tell us about teaching for understanding

**PROJECT ZERO/TEACHING FOR UNDERSTANDING RESOURCES**

***Printed Materials:***

Blythe, Tina, and Associates. (1998). *The Teaching for Understanding Guide.* San Francisco: Jossey-Bass.

Hetland, Lois, and Veenema, Shirley (Eds.). (1999). *The Project Zero Classroom: Views on Understanding.* Cambridge, MA: Harvard Project Zero.  
  
Perkins, D. (2009). *Making Learning Whole: How seven Principles of Teaching can Transform Education*. San Francisco, CA: Jossey-Bass. San Francisco: Jossey-Bass.  
  
Perkins, D. (1992). *Smart Schools: Better Thinking and Learning for Every Child.* New York: The Free Press.  
  
RItchhart, R. (2002). Intellectual Character: What it is, Why it is Important, and How to Get It.

Veenema, Shirley, Hetland, Lois, and Chalfen, Karen (Eds.). (1997). *The Project Zero*.

*Classroom: New Approaches to Thinking and Understanding.* Cambridge: Harvard Project Zero.

Wiske, Martha Stone (Ed.). (1998). *Teaching for Understanding: Linking Research with Practice.* San Francisco:   
Jossey-Bass.

***Websites:***

http://leamweb.harvard.edu/alps

ALPS, Active Learning Practice for Schools, is an electronic community dedicated to

the improvement and advancement of educational instruction and practice. Its mission is to foster on-line collaboration between teachers / administrators from around the world and educational researchers, professors, and curriculum designers at Harvard's Graduate School of Education and Project Zero.

http://pzweb.harvard.edu

Project Zero's mission is to understand and enhance learning, thinking, and creativity in the arts, as well as humanistic and scientific disciplines, at the individual and institutional levels. PZ is an educational research group at the Harvard Graduate School of Education.

http://wideworld.pz.harvard.edu

WIDE World (Wide-scale Interactive Development for Educators) is a relatively new distance learning initiative from the Harvard Graduate School of Education. It offers educators high-quality, coaching-based professional development at a distance, with a focus on teaching for understanding, thinking, assessment, and the integration of new technologies.

Harvard Project Zero /124 Mt Auburn St / Fifth Floor / Cambridge, MA 02138 tel. (617) 495-4342

Test your essential questions for use in the classroom. Which of these qualities do the questions have? Make sure that the questions are written in language to be used with students. Note: the questions might be called *investigative questions* with students because this question will drive the investigation or research for the performance task.